WHAT IS CLAIMED IS:

1. An information storage medium comprising:

a substrate having grooves, lands formed between the grooves, and land pre-pits formed in the lands, the grooves, the lands, and the land pre-pits being formed on one side thereof;

a first dielectric layer, a phase-change recording layer, a second dielectric layer, and a reflective layer formed in this order on said one side of the substrate, the information storage medium being rotated at a linear speed ranging from 3.49 to 7.0 m/sec while said phase-change recording layer in said grooves is irradiated with a 600 to 700 nm wavelength laser beam through an objective lens having a numerical aperture ranging from 0.55 to 0.7, thereby effecting information recording and reproduction, wherein

said phase-change recording layer is made of a Ge-In-Sb-Te material, and said reflective layer is made of an Ag-Nd-Cu material;

said first dielectric layer has a thickness ranging from 65 to 85 nm, said phase-change recording layer has a thickness ranging from 10 to 20 nm, said second dielectric layer has a thickness ranging from 13 to 23 nm, and said reflective layer has a thickness ranging from 100 to 225 nm; and

said grooves have a width ranging from 200 to 350 nm and a depth ranging from 25 to 50 nm, and said land pre-pits have a depth in a range of plus-minus 3 nm relative to the depth of said grooves.

2. The information storage medium according to claim 1, wherein

said grooves are formed in a meandering pattern in a constant

cycle and have a track pitch in a range of from 0.7 to 0.8 μm.

3. The information storage medium according to claim 1, wherein said Ge-In-Sb-Te material forming said phase-change recording layer is composed of 3 to 5.5 atom% of germanium, 3 to 5.5 atom% of indium, 68.5 to 72 atom% antimony, and 20 to 23.5 atom% of tellurium.

4. The information storage medium according to claim 1, wherein said Ag-Nd-Cu material forming said reflective layer comprises 0.3 to 0.8 atom% of neodymium, and 0.5 to 1.0 atom% of copper.

5. The information storage medium according to claim 1, wherein said first dielectric layer includes a third dielectric layer on the side of said substrate and a fourth dielectric layer on the side of said phase-change recording layer,

said third dielectric layer being chiefly composed of silicone oxide and zinc sulfide and having a thickness ranging from 65 to 80 nm, and

said fourth dielectric layer being chiefly composed of one of aluminum nitride, germanium nitride, and silicone nitride and having a thickness of 5nm or less.

6. The information storage medium according to claim 1, wherein said second dielectric layer includes a fifth dielectric layer on the side of said phase-change recording layer and a sixth dielectric layer on the side of said reflective layer,

said fifth dielectric layer being chiefly composed of silicone

oxide and zinc sulfide and having a thickness ranging from 12 to 18 nm, and

said sixth dielectric layer being chiefly composed of one of aluminum nitride, germanium nitride, and silicone nitride and having a thickness of 5nm or less.